

THIN INTEGRATED CIRCUIT DEVICE PACKAGES FOR IMPROVED RADIO
FREQUENCY PERFORMANCE

ABSTRACT OF THE INVENTION

[0033] A semiconductor package comprising a non-conductive film which defines opposed top and bottom film surfaces and includes a plurality of vias disposed therein. Disposed on the top film surface is a plurality of upper leads which circumvent respective ones of the vias. Similarly, disposed on the bottom film surface is a plurality of lower leads which circumvent respective ones of the vias and are electrically connected to respective ones of the upper leads. At least one transmission line element is also disposed on the top film surface and electrically connected to at least one of the upper leads. Attached to the top film surface and electrically connected to at least one of the upper leads and the transmission line element is at least one semiconductor die. A package body at least partially covers the semiconductor die, the upper leads, the transmission line element, and the top film surface.